THE BULLETIN

NANA

NOVEMBER

1937

—

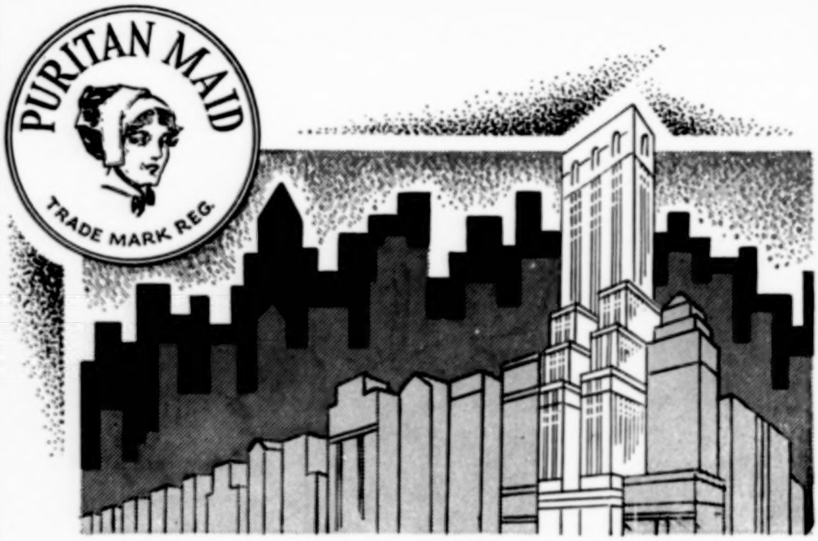
VOLUME 5

—

NUMBER 4

—

OF THE NATIONAL ASSOCIATION
NURSE ANESTHETISTS



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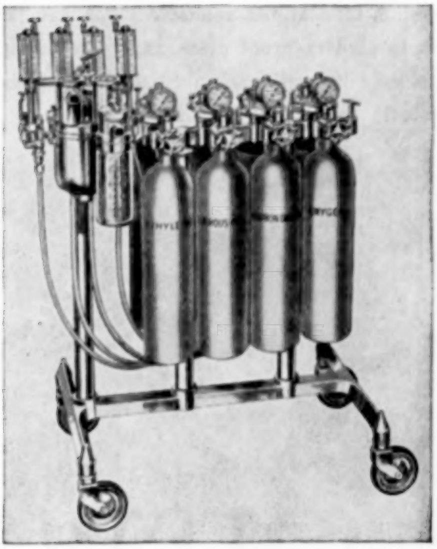

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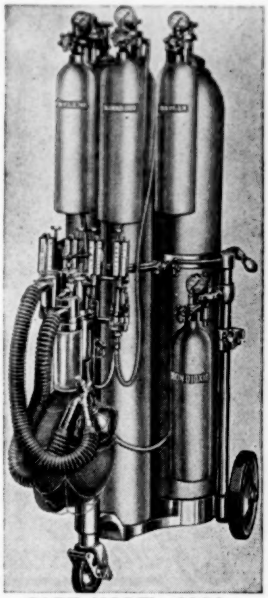

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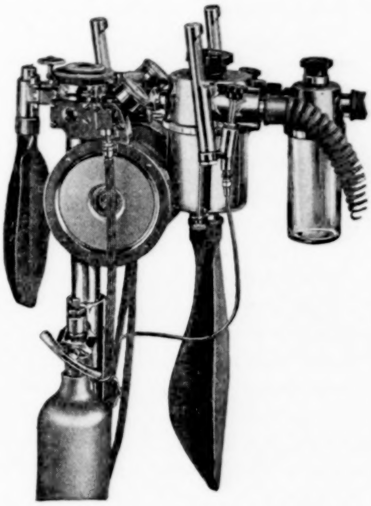

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The Bulletin of the National Association of Nurse Anesthetists

VOLUME 5, NO. 4 NOVEMBER, 1937

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The Bulletin of the National Association of Nurse Anesthetists is published quarterly by the National Association of Nurse Anesthetists; Executive, Editorial and Business Offices, 2065 Adelbert Road, Cleveland, Ohio.

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Entered as second class matter February 6th, 1937, at the Postoffice at Cleveland, Ohio, under the Act of March 3rd, 1879.

Miriam G. Shupp, President
National Association of Nurse Anesthetists
Strong Memorial Hospital
Rochester, New York

FIFTH ANNUAL MEETING
NATIONAL ASSOCIATION OF NURSE ANESTHETISTS
ATLANTIC CITY, NEW JERSEY
September 14th, 1937

Banquet of National Association of Nurse Anesthetists
Sept. 14 - Ritz-Carlton Hotel, Atlantic City, N. J.

REPORT OF FIFTH ANNUAL MEETING NATIONAL ASSOCIATION OF NURSE ANESTHETISTS

The fifth annual meeting of the National Association of Nurse Anesthetists was held in Atlantic City, N. J., September 13 to 17, inclusive, in conjunction with the American Hospital Association. The attendance was approximately 300, with thirty-five states represented, also Canada and Hawaii (see registration list on page 447).

The program, which appeared in detail in the August issue of the Bulletin, was carried out in full. A portion of the papers presented appear in this issue, and others, for lack of space, will be carried forward to the February issue.

The Board of Trustees met on Monday, September 13, to review the work of the year and to formulate their recommendations for the general meeting covering the future program of the organization.

On Tuesday morning Dr. Claude Munger, President of the American Hospital Association, brought greetings to the assembly at the general session, and in his remarks emphasized the indispensability of the nurse anesthetist to present-day hospital service.

The banquet was held on Tuesday evening at the Ritz-Carlton Hotel and approximately two hundred and fifty were present. Thirteen of the nineteen states now organized in the National Association were represented at the speakers' table. The Honorable Charles J. Margiotti, Attorney-General of Pennsylvania, and Mr. Robert Jolly, of Memorial Hospital, Houston, Texas, Past President of the American Hospi-

UNSCHEDULED EVENT AT BANQUET

tal Association, were the guest speakers.

The banquet was complicated for a short time by a strike of the cooks and waiters of the hotel, called shortly before the scheduled time for serving. After a conference of a few minutes the officers decided, in view of the fact that the food had been prepared, that they and the Presidents of the State Associations, with the volunteered help of the distinguished guests, Mr. Jolly and Mr. Margiotti, would act as waiters and waitresses. It developed, however, that the hotel management were finally able to substitute with an entirely new crew of waiters. The incident created a great deal of amusement and a spirit of informality that enlivened the usually somewhat serious atmosphere of this function. The offer of our officers and guests to fill the breach exemplified the anesthetists' real motto—service.

The business session was held on Thursday morning, the President, Miss Hilda R. Salomon, presiding. Miss Anna Willenborg acted as Secretary of the meeting in the absence of Miss Mary Lucille Goodman, Executive Secretary.

The minutes of the last meeting were read and approved.

The following reports were read and approved, and appear in full in this issue on the pages indicated:

Report of the President, page 408.
Report of the Executive Secretary, page 411.
Report of the Treasurer, page 413.
Report of the Membership Committee, page 414.
Report of the Educational Committee, page 414.
Report of the Public Relations Committee, page 415.
Report of the Publishing Committee, page 417.
Report of the Revisions Committee, page 419.
Report of the Trust Fund Committee, page 420.
Report of the Placement Bureau Committee, page 423.

Two important decisions were made at this meeting, as follows:

First: Following the report submitted by a special committee, it was voted unanimously to move the Headquarters of the National Association of Nurse Anesthetists to Chicago, and to employ a full-time office secretary.

Miss Anna Willenborg, of St. Joseph's Hospital, Chicago, was appointed by the Board of Trustees to serve as Executive Secretary and will be in charge of all routine business and correspondence at Headquarters. The office of the Treasurer will remain at 2065 Adelbert Road, Cleveland, Ohio, for the year.

Second: It was voted to establish and maintain a Placement Bureau for members of the National Association, to be operated at the National Headquarters.

It was voted to have available at National headquarters copies of the portfolio on state organization work prepared by Miss Verna M. Rice.

A clinic was held on Friday morning at Atlantic City Hospital and was well attended. Sister Borromea of St. Francis Hospital, Peoria, Illinois, demonstrated the use of cyclopropane and those present were given an opportunity to discuss the advantages and disadvantages of this anesthetic.

The following officers will serve the Association for the coming year:

President—Miriam G. Shupp
Strong Memorial Hospital, Rochester, N. Y.

First Vice-President—Hattie Vickers
Vanderbilt University Hospital, Nashville, Tenn.

Second Vice-President—
Rosalie C. McDonald
Emory University Hospital, Emory University, Ga.

Third Vice-President—
C. Virginia Godbey
Norfolk Protestant Hospital, Norfolk, Va.

Treasurer—Gertrude L. Fife
University Hospitals, Cleveland, O.

Trustees—
Hilda R. Salomon
Jewish Hospital, Philadelphia, Pa.
Dorothy M. Hoadley
Methodist Hospital, Fort Worth, Texas.

Historian—Helen Craven
City Hospital, Welfare Island, New York City

LIFE MEMBER

Miss Helen Craven, City Hospital, Welfare Island, New York City, was accepted as a Life Member of the National Association in consideration of the usual payment of One Hundred Dollars.

PRESIDENT'S REPORT

Another year has come to a close and we are assembled to review the work of our organization. It is indeed a great pleasure to greet you at this the fifth annual convention and we have made every effort to prepare a program which we hope you will find helpful and inspirational. The detailed reports of the activities of the Association will be presented, therefore my report will be as brief as possible, mentioning only some of the problems we have had under consideration.

It has been the aim of the Board of Trustees to obtain the active participation of an ever-widening group of anesthetists in committee work. The opportunity to develop leadership within the organization comes largely through serving on committees with those who are familiar with the activities and problems of the Association. For the continued growth of this organization I strongly urge a continuation and extension of this policy.

With a membership of approximately 1400, we find that about 15 per cent attend the annual conventions. Much is to be gained by meeting with your colleagues annually and exchanging ideas, and so valuable are the reports and papers presented that the opportunities and advantages of conventions such as this are too numerous to be mentioned. Let us this year make every endeavor to increase the attendance at our next annual meeting. You who *are* interested can surely interest others.

One of the most important projects under consideration during the past year was the transfer of Headquarters from Cleveland to Chicago. Since the National Association was organized we have been most fortunate in having the cooperation of the officials of the University Hospitals of Cleveland. Now that we are firmly established and have a substantial balance in the treasury, we feel that continued operation of Headquarters in Cleveland would be an imposition on that group. A committee was appointed to investigate the advisability of this change, the proper location, expense, et cetera, and it is our hope that directly following this meeting we shall be prepared to announce the change. We are most grateful for the many kindnesses extended by all who have in any way helped to organize and maintain the National Association of Nurse Anesthetists, and take this opportunity to express our appreciation.

The demand for nurse anesthetists this year has been so much greater than the supply, that a recommendation was made by your President in her last report for the establishment of a Placement Bureau for Nurse Anesthetists at Headquarters. A committee is at present formulating plans and it is hoped that in connection with the new headquarters we shall be able to develop and maintain this registry with a full time secretary.

Little mention need be made of the work done by the Publishing Committee—the past four issues of the Bulletin certainly speak for themselves. If you have not received copies of this valuable publication please keep the Executive Secretary advised of your latest address. In checking the list of members and addresses some errors are noticed. This is *not* our fault. If you have changed your position from one hospital to another you have probably neglected to notify us of the change of address and since we have been fortunate in obtaining postal permit for second class mail, the misdirected Bulletins are not forwarded.

For the betterment of the Association the Board of Trustees has felt it advisable to suggest a revision of the present Code of Regulations. As this is a tedious and difficult task, the Revisions Committee has necessarily spent considerable time on this work. Final changes will be presented for your consideration during the coming year.

The Educational Committee has been working most diligently toward the "grading of schools" and the advisability of a "Board of Examiners." A comprehensive report will be presented at this meeting.

Every organization is most interested and concerned with its public relations activities and it is regretted that the ideas and suggestions formulated by the Public Relations Committee could not be realized this year. This program requires much work and we shall need the cooperation and help of every member throughout the country to carry it into effect. The grouping of states into divisions will be the first step toward establishing a systematic method by which we may accomplish the major purposes of the National organization. We urge you to respond graciously and actively this next term when called upon for your assistance.

The establishment of a Trust Fund is being considered by the Board and it is hoped that much progress will be made along these lines during the coming year.

Nineteen states have already organized and are showing increased interest. We have on hand at Headquarters material giving information in regard to the method of procedure for organizing a State Association and we will be very happy to assist you at any time in bringing together the anesthetists in your state for the purpose of group activity. Bear in mind the old adage, "In union there is strength" and exemplify it by forming state groups.

As retiring President I am eager to express to you how deeply I have appreciated the honor and privilege of serving you for the past two years. The position offers many possibilities and advantages, not the least of which is the opportunity to meet with leaders of various other organizations as well as those of our own groups. These workers in kindred professions have come from East and West, from North and South, and to have met them and counselled with them has been an inspiration as well as a means of gaining a clearer picture of the working of our profession. It has been my desire to give the best I have to our National Association, and I feel that despite hard work, despite many troublesome difficulties and many hours of detailed planning, I have received far more than I have given.

What has been accomplished is due largely to the unfailing assistance and support rendered by the officers, the Board of Trustees and the members of committees, and to them I am truly grateful. Your patience with my shortcomings and your loyalty and cooperation are deeply appreciated.

May the coming years be filled with satisfaction and accomplishments. May we strengthen the bonds of fellowship and of friendship and may our combined efforts be the power which shall not only provide unfailing and unfaltering assistance to the incoming President—but as well, to the onward and upward progress of our organization.

The Board of Trustees recommends:

1. The continuation of action toward the establishment of a Placement Bureau at Headquarters.

2. That Headquarters for the National Association of Nurse Anesthetists be established in Chicago, with the employment of a full time office secretary.

3. That a letter of thanks expressing the deep gratitude of this Association be sent to the University Hospitals of Cleveland, in appreciation of its support and assistance during the past five years.

4. That immediate action be taken toward carrying out the outline as recommended by the present Public Relations Committee.

5. That careful consideration be given to the Code of Regulations now being revised, before submitting same to the members.

Respectfully submitted,

HILDA R. SALOMON

September 16, 1937

Anna Willenborg
St. Joseph's Hospital
Chicago, Illinois
Executive Secretary

REPORT OF EXECUTIVE SECRETARY

Total paid-up membership September 1st, 1937:

Active	1,278	
Associate	74	1,352

Delinquent members September 1st, 1937:

Active	173	
Associate	15	188

Members resigned during current year	2
Deceased members	1
Anesthetists requesting that their names be placed on file for positions	17
Requests from hospitals for anesthetists	17
Pieces of mail sent out (exclusive of Bulletins) approximately	4,950
Notices of acceptance as members mailed to applicants 297 active; 27 associate	324

On September 1st, 200 programs for the annual meeting in Atlantic City were mailed to recent applicants and others on the mailing list, the program having also been published in the August issue of the Bulletin.

In November, 1936, a secretary was employed for five half days each week, at the rate of $50.00 per month. She resigned on July 1st, 1937, because of illness, since which time the office secretary in the department, who was familiar with the routine, has taken care of the work to avoid breaking in a new secretary for the balance of the year, or until such time as a decision can be made relative to headquarters.

At the request of Ann M. Nightengale, President of the University Hospitals (Lakeside) School of Anesthesia Alumnae Association, the Board of Trustees decided to allot one page per issue in the Bulletin to the alumnae association for any material they might wish to publish.

The Association headquarters office desires to call attention to some complaints which have been received from members concerning the sending of money to the headquarters office by mail without its ever having been received at the Treasurer's office. These losses are very probably explained by the recent arrest and conviction of an employee at Lakeside Hospital, where the Treasurer's office is located. This employee was arrested for intercepting mail and removing cash therefrom, and there was found upon his person a letter from an Associatian member which had contained a remittance. It is suggested that remittances in the future be made either by postal money order, registered mail, or personal check.

We wish to thank the State Association officers who have co-operated in the prompt and efficient conduct of inter-Association business.

Respectfully submitted,

September 10th, 1937 MARY LUCILE GOODMAN, Executive Secretary

MARY LUCILE GOODMAN
University Hospitals
of Cleveland
Executive Secretary
1935-36-37

TREASURER'S REPORT

Cash in Bank August 31, 1936		$ 5,824.39
Receipts September 1, 1936 to August 31, 1937:		
Initiation Fees	$ 350.00	
Dues — National Association	2,834.10	
— State Associations	1,542.00	
Reserved for Trust Fund	134.40	
Reserved for Publishing Fund	697.85	
Sale of Advertising Space in Bulletin	1,375.00	
Sale of Pins	136.50	
Interest Earned	67.57	
Miscellaneous	7.00	7,144.42
		$12,968.81
Disbursements September 1, 1936 to August 31, 1937:		
Publishing Bulletins	$1,455.47	
Convention Expenses	762.80	
Office Salaries	680.00	
Legal Services	601.00	
Traveling Expenses	430.72	
Transfers to State Associations	290.50	
Postage	236.75	
Office Rent	224.00	
Printing and Office Supplies	152.82	
Pins Purchased	127.83	
Telephone and Telegraph	67.90	
Accounting Services	40.00	
Books and Periodicals	11.29	
Office Equipment	6.18	
Moving Expense	3.00	
Miscellaneous	51.87	5,142.13
Cash on Hand and In Bank August 31st, 1937		$7,826.68

Consisting of the following:

Savings Account No. 38726	$7,380.37	
Checking Account	207.96	
Cash on Hand	$238.35	$7,826.68

The foregoing figures have been verified by the auditor in the usual manner, and his report is on file.

Respectfully submitted,

Gertrude L. Fife, Treasurer

September 10, 1937

REPORT OF MEMBERSHIP COMMITTEE

The Membership Committee has held monthly meetings during the year.

The committee passed upon and approved 324 applications for membership in the National Association of Nurse Anesthetists—297 active and 27 associate. Eight applications were rejected.

The total number of applications which have been approved since the organization was started is 1847.

Respectfully submitted,
MYRN MOMEYER, Chairman
MARIAN HOLLISTER
MARJORY H. WALKER

September 10th, 1937

REPORT OF THE EDUCATIONAL COMMITTEE

The activities of your Educational Committee during the past year have centered chiefly around, and now emphasize the desirability of developing a workable composite plan on a broad national scope, looking to:—

First

The establishment of inspected standards of training in Schools of Anesthesia which desire acceptance by the National Association of Nurse Anesthetists or whose graduates can expect to be acceptable for membership in our Association—this instruction and training to be at least equivalent to the "Pattern Curriculum" already adopted by our Association.

Second

The examination and certification of suitable graduates from such "accredited" schools of training in this subject, as well as examination and/or certification of currently active nurse anesthetists of requisite training, skill and experience.

To appraise the soundness of this composite plan of spurring schools of anesthesia to a stated and inspected standard of training, and of eventually nationally certifying Nurse Anesthetists individually, we have contacted individual members of the American Board of Surgery and of the American Hospital Association and have received favorable reaction to the idea behind the plan, without under-rating the many problems to be overcome in working out the details practically.

Since our committte feels that the fullest development and value of its plan will be greatly enhanced by cooperation of national groups, such as the American Hospital Association and the American Board of Surgery, it is now planning to contact those bodies officially and in the meantime requests your approval of its plan, and your authorization to proceed with it along lines which will be worked out by the Educational Committee and the Board of Trustees.

Respectfully submitted,
HELEN LAMB, Chairman
OLIVE BERGER
MAE CAMERON
MARY MUELLER
SISTER RUDOLPHA

REPORT OF PUBLIC RELATIONS COMMITTEE

Activities have during the past year been largely concerned with study of organizational problems inherent to the function of the Public Relations Committee. Briefly stated, these studies, based on recommendations made in the 1935 report of this committee and accepted at that convention, have resulted in the formulation of organizational outlines, a resumé of which is herewith given.

First Grouping states into larger divisions, taking into consideration the following factors:

- (a) Geographical proximity
- (b) Distribution of members, approximately equalized
- (c) Grouping of unorganized states with organized states, so that organization of former be facilitated
- (d) Providing for contact between National committees and State Associations.

Second Preparation of a form to be used in a research conducted to determine, as accurately as possible, the value of nurse anesthetist service, data based on:

- (a) Numerical strength
- (b) Efficiency of service
- (c) Legality of service
- (d) Outlined recommendations as to proper means to be employed to build up friendly, helpful contacts with other professional groups and the laity for the purpose of acquainting them with the value of such service in particular localities, and to make known a National program concerned with the advancement of the work as a whole. In this connection the importance of creating still wider influence, by increased use of judiciously planned informational publicity, is emphasized.

Third Compiling of a "questionnaire," giving pertinent facts regarding the establishment of nurse anesthetist service and advancing constructive arguments for its continuance as a branch of hospital service.

These outlines have been submitted to the Chairman of the Board of Trustees, and it is the hope of this committee that they may prove of help in any plan for extension of public relations service which may later be decided upon.

That success of any such service will depend largely upon the degree of cooperation established between those concerned, is self-evident. With this in mind we urge State Association officers to send in any suggestions which would clarify the situation in their particular state, and in turn to feel free to consult with this committee, through Headquarters, on any problem relative to public relations activities.

Legislation — We are happy to report that while there have been during the year recurring threats to pass legislation unfavorable to nurse anesthetists, up to date no definite action has been taken in any state. A particularized summary of the present situation is herewith presented.

California — Following the favorable decision we obtained in California, considerable agitation occurred in the legislature in regard to a possible renewing of adverse action against nurse anesthetists. As a necessary safeguard arrangements were made to have our legal counselor obtain and examine all bills which might adversely affect our interests; to date none have been found to contain anything inimical to such. In this connection there is no doubt but that the favorable outcome of the California case has had not only a definite influence in that state, but has also affected favorably the cause of nurse anesthetists throughout the entire country.

Florida — Upon receiving reports that an adverse bill was likely to be introduced during the spring legislative session, precautionary measures were set in motion; the Florida State Association of Nurse Anesthetists co-operating with the National Association in keeping the situation well covered. Your chairman, in personal touch with the situation, was gratified to learn from hospital authorities that not only was a nurse anesthetist service considered satisfactory, but they would be loathe to change the existing situation. It is therefore our opinion that legislation against the nurse anesthetist is not likely to be instituted in the state of Florida.

Indiana — The situation here remains practically the same, but we feel assured that an alert watch is being maintained by the nurse anesthetist group in that state.

New York — The decision of the Committee on Legislation of the New York Medical Society *to delay* action on proposed legislation to secure passage of a bill that would "restrict the giving of anesthetics to physician anesthetists," has changed a feared *probability* to a *possible* future event. It is significant that this proposal to delay was presented by the American Society of Anesthetists and the American Society of Regional Anesthesia—inference might reasonably be drawn from this fact that nurse anesthetist service is not entirely disapproved by two important societies deeply interested in the progress of anesthesia.

The reasons given, in asking for the delay of "a year or longer," demand our serious attention, indicating as they do, a change of policy in regard to the future course of action to be followed by those opposed to the continuance of nurse anesthetist service. Briefly outlined these reasons are:

First — Acknowledgment of the numerical strength of nurse anesthetists in New York state; Second—acknowledgment of the resulting hardship, should a system now established (and apparently satisfactory) be changed; also expression that there are many surgeons in New York state who are not yet persuaded of the wisdom of limiting the administration of anesthesia to physicians; coupled with this suggestion of interim missionary effort to convert hospitals to medical anesthetist service.

Analysis of the above legislative summary would indicate that legislative opposition will not be a prominent feature in the future program of opposing parties. This fortunate turn of events will not however make us less alert in watching the legislative situation, as we realize keenly that if the ground gained is to be kept, vigilance must not be relaxed.

It is the opinion of this committee that the legislative situation, generally, is greatly modified, and that this happy turn of events is due largely to the weight and influence exerted by the National Association. Future progress will be made *not* by criticism of our opponents, but rather by concerted action, to build up strong cooperation between the National Association and State Associations, in furthering a national educational program, concerned with rendering the best possible anesthetic service to the public. The accomplishment of this objective will by making prominent the National Association of Nurse Anesthetists, as a body devoted to the progress of anesthesia — give conclusive proof of the place and value of nurse anesthetist service in hospital work, and supply the most convincing reason for its continuance.

The committee expresses appreciation of the helpful cooperation extended by the Board of Trustees, and the valuable assistance rendered by our legal counselor.

Respectfully submitted,
AGATHA HODGINS, Chairman
LOU E. ADAMS
CORA MCKAY
MYRA B. QUARLES
JEAN O'BRIEN
MARIAN ROBINSON
September 10th, 1937

REPORT OF PUBLISHING COMMITTEE

COMPARATIVE STATISTICAL REPORT FOR YEARS 1935-36-37

Year	No. of pages exclusive of Advertising	No. copies distributed	Total cost of publishing Bulletin including postage*	Advertising Pages	Advertising Income
1935 (3 issues)	149	3,671	$ 762.92	16	$ 820.00
1936 (3 issues)	185	4,600	1,056.24	19¾	911.00
1937 Nov.-'36 Feb.-'37 May-'37 Aug.-'37	206	6,400	1,422.73	28	1,270.00

Publishing Fund accumulated during current year to September 1st, 1937 (subscription price, 50c, deducted from dues of each individual member)	$ 698.85
Total receipts Publishing Fund for 1937	$1,968.85
Total cost of publishing 1937 issues	1,422.73
Surplus for year	$ 546.12

The Bulletin was entered as second class matter on February 6, 1937, at the Postoffice at Cleveland, Ohio, under the Act of March 3rd, 1879. It may be of interest to note the saving effected by sending the Bulletin out under second class rates. For instance, it cost $3.92 to mail the February issue under the second class postal rates, otherwise it would have cost $24.08. In this connection, however, the members must realize that matter mailed under the provisions for second class matter cannot be sent to a forwarding address unless extra postage

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* (Still a credit of $10.29 at the postoffice on $25.00 deposit on postage.)

NEW MEMBERS OF THE BOARD OF TRUSTEES

Dorothy Hoadley
Methodist Hospital
Fort Worth, Texas
1937-40

Hattie Vickers
Vanderbilt University Hospital
Nashville, Tenn.
1937-38

Theresa A. McTurk
Metropolitan Hospital
Philadelphia, Pa.
1937-39

is added. It is therefore important that members notify headquarters promptly of any change of address in order to insure prompt delivery.

We again wish to thank the companies that have accepted advertising space in the Bulletin for their continued support, which has made it possible for us to bring to the attention of our members leading firms manufacturing anesthesia supplies.

We wish to express our appreciation to those who have contributed articles to the Bulletin. In reviewing the past issues it is not only interesting but it is a great compliment to our organization to have had the opportunity to include articles from so many leaders in the medical profession. We are indeed grateful for their interest and help.

Respectfully submitted,

Gertrude L. Fife, Chairman
Esther Meil
Florence Sargeant
Gertrude Alexander Troster
Louise Schwarting

September 10, 1937

REPORT OF REVISIONS COMMITTEE

The Revisions Committee presents for your consideration the following suggested changes in the Code of Regulations of the National Association of Nurse Anesthetists:

The title changed from "Code of Regulations" to "By-Laws of the National Association of Nurse Anesthetists."

Article II, Section 1: Strike out word "members" and insert "Association."

Article II, Section 2: Strike out: "One member of the Board of Trustees shall be elected for one year, one for two years, one for three years, one for four years and one for five years."

Article III, Section 1 corrected to read: "The officers of this Association shall be a President, First Vice-President, Second Vice-President and Third Vice-President, Executive Secretary, Treasurer and Historian; and with the exception of the Executive Secretary and the Historian, shall be elected for terms of one year each at the regular annual meeting of the members of the Association. The officers shall be eligible for re-election except the President, who may not succeed herself for more than two consecutive terms of office of one year each. The Historian shall be appointed by and hold office for such term as is designated by the Board of Trustees."

Article IV, Section 3: On the fourth line insert "By-Laws" instead of "Code of Regulations."

Article V, Section 5: On the second line insert "By-Laws" instead of "Code of Regulations."

Article VI, Section 2: Insert the word "women" in the third line before "nurse anesthetists," and in the second line after "any association of."

Article VI, new Section 4: To read: "Memberships are transferable from one state to another. Transfer of said membership is effected through headquarters by executing properly the forms provided by the National Association of Nurse Anesthetists for said purpose. A member must be in good standing for the current year in the

State Association of Nurse Anesthetists from which she requests transfer or if delinquent, her dues for the current year must accompany her request for transfer."

Article IX: Strike out "Code of Regulations" and insert "By-Laws."

Article XI: Strike out "This Code of Regulations" and insert "These By-Laws."

Respectfully submitted
THERESA A. MCTURK,
Chairman
HATTIE VICKERS
MARY A. WARE

September 13, 1937

REPORT OF TRUST FUND COMMITTEE

The Trust Fund Committee presents the following resolution:

BE IT RESOLVED that the members of the Board of Trustees of the National Association of Nurse Anesthetists, and their successors, be and they are hereby appointed and constituted Trustees of a fund to be known as the Trust Fund of the National Association of Nurse Anesthetists hereinafter referred to as the Trust Fund.

The terms, provisions and purposes of said Trust Fund and the duties of said Trustees are as follows:

1. Beginning January 1, 1938 and annually thereafter, there shall be set aside from the Treasury of the National Association of Nurse Anesthetists the sum of ten cents (10c) per each member in good standing and said money deposited in a separate account known as the Trust Fund of the National Association of Nurse Anesthetists in the bank in which the National Association of Nurse Anesthetists deposits its funds. The Treasurer of the National Association of Nurse Anesthetists shall also serve as the Treasurer of said Trust Fund of the National Association of Nurse Anesthetists and shall make an annual report to the Trustees of such Trust Fund, such report to contain a statement of the amount of contributions received from each State Association as well as the amount paid into said Trust Fund by the National Association of Nurse Anesthetists, showing the amount contributed on account of members from each of the several states. Such report shall also show the disbursements from said Fund for investment purposes, as well as payments to beneficiaries of said Fund and in the case of payments to beneficiaries, the amount paid shall be divided as to states, showing the amount paid to members residing in each of the several states; such report shall also contain a complete statement of disbursements for expenses of operating the Fund and shall show the balance on hand in cash, securities or any other property or evidence of indebtedness.

Beginning with January 1, 1943, each State Association affiliated with the National Association of Nurse Anesthetists shall contribute to this Trust Fund ten cents (10c) per each member in good standing and shall keep an accurate record of all such payments to said Trust Fund in addition to such records which shall be kept by the Treasurer of said Trust Fund of the National Association of Nurse Anesthetists.

The Trustees of this Fund are empowered to accept contributions, bequests and gifts from persons whether members or not of the National Association of Nurse Anesthetists, provided no conditions attach to such contributions, bequests or gifts which would be inconsistent with the purposes of this Fund or which in any way restrict the operation of the Fund as a whole, and any funds received from such contributions or gifts shall become part of this Trust Fund and subject to the provisions of this Resolution in the same manner as funds paid into this Trust Fund from the general funds of the National Association of Nurse Anesthetists.

2. The Trustees of said Trust Fund shall as soon as the sum of One Thousand Dollars ($1,000.00) has been accumulated, invest said monies in securities which constitute legal investments for life insurance companies and savings banks under the laws of the State of New York. The said funds are to be invested in no other securities under any circumstances.

3. There shall be no disbursements from this Fund for any purpose except for the purchase of securities authorized herein and for legal and proper brokerage fees and commissions, before October 1, 1957, and there shall be no disbursements except for the purchase of securities as aforesaid on or after October 1, 1957, unless there shall be not less than Fifty Thousand Dollars ($50,000.00) in said Fund, and in the event that there is a balance of Fifty Thousand Dollars ($50,000.00) in said Fund at that time, no disbursements or expenditures shall be made except out of interest or earnings, it being the intention of the National Association of Nurse Anesthetists to preserve the principal funds intact.

It is provided, however, that if the principal sum of One Hundred Thousand Dollars ($100,000.00) has been accumulated prior to October 1, 1957, disbursements may then be made out of the interest or earnings of said Fund for the purpose hereinafter specified, and such disbursements may be made out of said income of said Fund prior to October 1, 1957, as long as the principal amount of said securities and said monies in said Trust Fund is not less than One Hundred Thousand Dollars ($100,000.00).

It is further provided that if at any time the total value of the securities and monies held by this Trust Fund shall be less than Fifty Thousand Dollars ($50,000.00), no disbursements of any kind or character shall be made except for the purchase of securities as herein provided and the payment of brokerage fees in connection with such purposes.

4. The purpose for which this Trust Fund is created is to provide for such members of this Association who may become indigent through age or physical disability. It is the intention of the National Association of Nurse Anesthetists to eventually establish and maintain with the proceeds of this Fund a home for such members as may become indigent and who may become entitled to the benefits of this Fund as herein provided. It is provided, however, that until such time as such a home shall be established and maintained, members entitled to the benefits of this Trust Fund may in the discretion of the Trustees of this Fund be granted monthly benefits according to their needs, but in no case in excess of Thirty Dollars ($30.00) per month to each such member, and payment of such benefits shall be made only out of income of said Fund and in no case out of the principal.

5. No person shall be entitled to the benefits of this Fund unless she shall have been an active member in good standing of the National Association of Nurse Anesthetists for not less than twenty (20) years.

When said proposed home for the purpose of providing care and maintenance for indigent and infirm members who qualify hereunder for such maintenance, shall have been established, each and every member who makes application for admission to such home for the purposes herein provided and who is accepted as qualified to receive such benefits, shall before entering said home execute valid assignment in writing to said Trust Fund of any and all monies, securities, real estate or property of any kind and description whatsoever which said beneficiary may inherit or otherwise become entitled to receive in the future from any source whatsoever.

6. Any member who shall cease to contribute to this Fund or who shall cease to be a member in good standing of the National Association of Nurse Anesthetists prior to becoming eligible to receive the benefits of this Trust Fund shall forfeit any and all rights hereunder and shall not be entitled to any refund of any kind or nature, and shall have no further right or interest in and to said Fund.

7. The Treasurer of said Trust Fund shall furnish a good and sufficient surety bond executed by a solvent Bonding Company in favor of said Trust Fund conditioned upon the faithful performance of her said duties as Treasurer, and said bond shall be in the amount of fifty per cent (50%) of the total amount of monies and securities belonging to said Trust Fund in the custody of said Treasurer.

The Trust Fund Committee shall select a bonding company that meets with the approval of the Board of Trustees for such bonding of the Treasurer.

8. It is further provided that in view of the difficulties of determining how this Trust Fund may be managed at a future date, the active members in good standing of this Association may at any annual meeting modify or amend any or all of the terms, provisions and/or purposes herein specified, provided such resolution or modification or amendment receives the affirmative vote of not less than three-fourths of the members present and qualified to vote.

It is further provided that this Trust Fund may be abolished entirely by the affirmative vote of not less than three-fourths of the active members qualified to vote at any annual meeting and in the event that said Trust is abolished, any securities or monies then belonging to said Trust Fund shall be returned to the Treasury of the National Association of Nurse Anesthetists and the Treasuries of the various State Associations which have contributed to this Fund, and said funds shall then be divided between the National Association Treasury and the various State Treasuries on a pro rata basis according to contributions made to the fund by said several Treasuries and Associations and said Fund may then be used by said various organizations for the general purposes of said Associations. It is provided, however, that if any or all of said Associations wish to contribute their share of said funds or any part thereof to the National Treasury for general or specific purposes, said National Association of Nurse Anesthetists is empowered to accept such contributions for the purposes specified.

Respectfully submitted

VERNA RICE, Chairman
HATTIE VICKERS
GERTRUDE FIFE (Treas.)

September 13, 1937

REPORT OF PLACEMENT BUREAU COMMITTEE

The committee during the past year has studied the possibility of establishing a placement bureau for nurse anesthetists, to be operated in conjunction with the National Association. The committee feels that this bureau should function as a part of the National Association, and recommends that the headquarters of the bureau be located at the headquarters of the National Association and that the Executive Secretary take charge of this bureau until such time as it is well established. For the time being the volume of work will not be such as to warrant the employment of a stenographer and it is felt by the committee that the office secretary of the National should be able to handle the amount of work involved.

The committee also recommends the following:

1. No registration fee.
2. Applicant to furnish six small photographs.
3. Telegrams to be sent to applicant collect, and if the applicant refuses same the application to be removed from the files.
4. Application to remain on file for one year, unless the applicant accepts a position.
5. Rate of commission: The following is the rate of commission which is recommended by the Committee to be charged to the applicant when she accepts through the bureau a position paying:

   $ 1.00 to $100.00 per month — 15 per cent of one month's salary

   $101.00 to $125.00 per month — 25 per cent of one month's salary

   $126.00 to $150.00 per month — 30 per cent of one month's salary

   $151.00 and up per month — 40 per cent of one month's salary.
6. If an applicant applying for one position accepts another through the instrumentality of the National Association of Nurse Anesthetists a commission is due the National Association.
7. All information given to a candidate must be considered confidential and is to be used only by the one to whom it is given. If any candidate reveals information pertaining to a vacancy and through it someone else secures the position, the candidate is held responsible for the commission.

An application blank has been prepared to be sent out by the bureau headquarters when an anesthetist makes application for a position. This application blank we believe covers all the information necessary to be secured from the applicant.

A reference blank to be sent to those whom the applicant gives as references has also been prepared which will, if filled out satisfactorily, allow the bureau to select the proper individuals for positions available.

Respectfully submitted,
Irene McFadden Stillman,
Chairman

Lou E. Adams
Lucy E. Richards
Dorothy McCarthy

September 10, 1937

CONTEMPORARY CYCLOPROPANE ANESTHESIA*

SISTER M. BORROMEA, O.S.F.
Chief Anesthetist and Instructor
St. Francis Hospital, Peoria, Illinois

Left to right: Sister Ambrosia, Holy Cross Hospital, Chicago, Ill.; Sister Rudolpha, St. John's Hospital, Springfield, Ill.; Sister Borromea, St. Francis Hospital, Peoria, Ill.; Sister Regula, St. John's Hospital, Springfield, Ill.

I have been asked to furnish a paper on the administration of cyclopropane. It is not an easy matter because anesthesia is more intricate today than it used to be, and we must admit that applied methods always lag a little behind scientific development or, as the saying is, theory and practice often conflict.

There is, in the case of cyclopropane, an unusual preparatory campaign necessary. A considerable amount of fear is to be overcome which concerns the surgeon and the superintendent even more than the anesthetist. There is a fear of its explosibility and an uncomfortable dread of its potency. The first is rather ill-founded, for cyclopropane-oxygen in the proportion used has a very low explosive possibility. If the entire contents of the bag are emptied into the room as it is being used, it becomes such a weak concentration that even in the presence of an open flame sterilizer a flash will not be produced. This, however, applies only to modern methods. Unfortunately this is not true of some of our contemporary schools of anesthesia where the staff often goes home with an ether headache. Considering the fact that we have cyclopropane-oxygen now under much better control than we ever had ether-oxygen mixtures, we have every right to say that cyclopropane is not as explosive as ether-oxygen unless we are foolish or ignorant of the proper handling. As to the dread of the potency of cyclopropane, it is justified so long as one knows nothing about it. But by degrees, as we become familiar with this anesthetic we recognize its superiority in the control of anesthetic conditions, which, after all is nothing else but an advance in the protection of human life. Efficiency in the form of cyclopropane on the one side and safety in the form of oxygen on the other makes a wonderful team and what is needed is the knowledge and skill of the anesthetist to act as a guide.

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* Read at the fifth annual meeting of the National Association of Nurse Anesthetists, held in Atlantic City, N. J., September 13-17, 1937.

The saying that "ether is the safest anesthetic" was quite justified for many years past but, in my opinion, the time has come to discard this saying which, after all, is nothing but an excuse for a lack of education or "far behind the times" conditions. The enormous step forward which we have made since the carbon dioxide absorption technique was developed, places a greater responsibility on the anesthetist than the one based alone on the comforting consciousness of selecting the best anesthetic because it will not kill a patient.

Ether anesthesia has been responsible for more harm in the form of a damaged liver or ether pneumonia than any other anesthetic, with perhaps the exception of chloroform or the famous A.C.E. mixtures.

I predict that ether as the so-called "safest anesthetic" will lose its foothold. It is losing ground already, and our safest anesthetic should be the one that affords the best control and does the least harm to the human body. From this point of view cyclopropane unquestionably deserves to-day to be called the "safest anesthetic." It requires knowledge, however, to start an anesthetist on cyclopropane. We will do well to begin in the same manner as the group at the Wisconsin General Hospital did three years ago, and inasmuch as their first published reports stressed the plea for "safety first" and as the methods published bore every earmark of extreme care, I am of the opinion that the beginner with cyclopropane should begin as they did in Madison.

As to premedication—that all important factor—I speak only of my favorite. No method of induction or maintenance is complete unless we consider at the same time the preliminary medication given to the patient. The wonders of successful anesthesia as well as the mysteries of failures, are often explained when the whole story is told, including the nature of the premedication.

My favorite premedication is morphine-scopolamine. For the average 150-pound male patient, the dosage is morphine 1/4 grain, scopolamine 1/100 grain. It should be administered at least one-half to one hour prior to the operation. The dosage is decreased for women and children, as a rule according to the weight. Heavy preliminary medication is not advocated if the anesthetic is to be given by the young anesthetist, because the patient is relaxed too quickly and the warning signs may not be recognized. Scopolamine as a preliminary has continued to gain favor, and I advocate it as my first choice because I know that some of the foremost anesthetists in the country are using it, and their clinical reports on present methods are based on its use.

The first report on cyclopropane anesthesia by Ralph M. Waters and E. R. Schmidt of Madison, Wisconsin, which appeared in the Journal of the American Medical Association, volume 103, page 975, 1934, should be studied by the beginner. The first method described therein is simply expressed in the following directions, which I am using routinely:

"Fill the bag with oxygen about three quarters full; apply face mask and introduce cyclopropane at the rate of 600 to 700 cc, per minute, continuing this rate for from one to three mintues, according to anesthetic conditions. Then stop the cyclopropane flow and continue with the carbon dioxide absorption technique, running oxygen at from 200 to 400 cc. per minute." * There are, however, two other techniques for administering cyclopropane, as follows:

1. This technique was introduced by Dr. George Edgar Burford, St. Luke's Hospital, New York City, and is known as the "continuous flow" method of cyclopropane. After inducing the patient with 400 or 500 cc. of cyclopropane for three minutes, the flow is cut down to 10 cc. per minute throughout the remainder of the operation.

2. Another technique is to work with a definite knowledge of known amounts from the beginning of the induction until it is necessary to discontinue the cyclopropane.

I do not use the technique routinely which I am about to describe except for alcoholics or the extremely nervous patient, because it gives a much quicker induction.

Technique: Set the oxygen flow at three liters a minute and the cyclopropane at 600 cc. per minute and continue until the bag is almost full, then place the mask on the patient's face. Reduce the three liters of oxygen flow to metabolic oxygen—300 cc. per minute, and discontinue the cyclopropane. This technique eliminates much of the excitement in the induction stage.

For the benefit of those who are using the filtration technique, particularly with cyclopropane, may I impress upon you the importance of maintaining a free airway, which of course is indispensable in any inhalation anesthetic. It is also necessary to use a mask as nearly leak-proof as possible.

Carbon dioxide absorption is the most important factor in cyclopropane anesthesia. Cyclopropane should not be given (or at least with our present knowledge) without the use of the carbon dioxide absorber. One must be thoroughly familiar with the carbon dioxide absorption technique before one starts with cyclopropane. Because of lack of time and to eliminate confusion, I will not go into the administration technique. It is the duty of the instructor to explain it to the student during her course of training.

The beginner should be at liberty to turn on the ether for a few minutes in case the surgeon complains of light anesthesia, and in this way she will learn to control the anesthetic condition. The wonderful characteristic of cyclopropane—namely its potency, combined with the complete absence of irritating features, requires more attention and more specific knowledge.

It is generally assumed that an average of scarcely two liters of cyclopropane is necessary to establish a deep anesthesia. Therefore, instead of a flow of four or five liters of nitrous oxide, or approximately 90 per cent of the anesthetic gas, we run only about 600 cc. of cyclopropane and time it, in most cases, to not more than three minutes, using about 1800 cc. Thereby the proportions of oxygen and the anesthetic gas are reversed, and the oxygen in the mixture far exceeds the cyclopropane, which represents about 20 per cent of the mixture. This does not mean, of course, that 80 per cent is oxygen, for a certain amount of the nitrogen in the patient's lungs is in the mixture in the breathing bag. We thus actually have in the closed circle system (or in the breathing bag of the circle filter) a mixture of oxygen, nitrogen, cyclopropane, and a very small amount of carbon dioxide. Unless the nitrogen in the patient's lungs is expelled, we can be reasonably certain that by retaining the nitrogen we have only about 50 per cent oxygen in the

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* See paper of Neff and others from Madison School.

bag, about 30 to 35 per cent nitrogen and 15 to 20 per cent cyclopropane.

It does not seem as though the entire amount of oxygen should be necessary. A certain amount may act as diluent, the same as nitrogen, and serve the purpose of maintaining the respiratory volume. Since oxygen is a more expensive diluent than nitrogen, it seems advisable to retain the nitrogen of the patient's lungs and thereby reduce the amount of oxygen. It remains to be proved what the percentage of oxygen should be and so far, we play safe and keep it well above the percentage of oxygen in the air.

The physical signs are very similar to those in ether anesthesia with but one exception—the respiration is quieter and more shallow. It is now generally agreed that the respiration is the best indication and that eye and color signs are deceptive.

Respiratory arrest and respiratory paralysis seem to be the principal, in fact almost the only dangers to be considered. Because of the smoothness of the respiration and on account of the perfectly pink color, due to the excess amount of oxygen in the mixture, there is scarcely a warning given and the patient may stop breathing rather unexpectedly for those who are not familiar with the use of cyclopropane. Cyclopropane seems to be physiologically just as harmless as nitrous oxide but is as powerful as nitrous oxide is weak.

We must of course admit that there are some dangers in using cyclopropane which we must be educated to overcome. Cyclopropane has the potency of chloroform and ether, without their irritant qualities. The anesthetist must be careful not to rush the patient from one degree of narcosis to the next without allowing sufficient time for the dose administered to take effect.

Respiratory arrest may be due to complete oxygen saturation of the tissues, which produces an absence of oxygen want, or it may be due to paralysis of the respiratory center caused by the action of the cyclopropane, or very likely to the combination of both. Unquestionably this condition represents the beauty as well as the risk of cyclopropane anesthesia. Based on the feature of respiratory arrest that can be produced, experts have developed an entirely new method of anesthesia, called "apnoea anesthesia."

Cyclopropane is not a respiratory stimulant, therefore the respiratory signs may be absent until the depressive dosage is reached. The color cannot be used as a danger signal because of the high oxygen content—the patient may be pink and yet be getting an overdose of cyclopropane. The pulse is the most valuable sign or warning of overdosage of cyclopropane. The change in the character of the pulse may be arrhythmic, slowing down to below 50 per minute, or a very definite increase, as high as 140 per minute. The beginner's mistakes will usually be in the direction of overdosage.

The blood pressure is very important in general anesthesia, especially in cyclopropane. There is no drop in blood pressure in cyclopropane, in fact it goes up 10, 20, or 30 millimeters immediately after the induction but returns to normal within 10 or 15 minutes after administration begins. However, it should be noted that tachycardia, a severe drop in blood pressure, or shock, occur more frequently after cyclopropane than after other anesthetic agents.

The disadvantage of cyclopropane lies chiefly in the fact that modern equipment is necessary for its administration. It is not indicated for very short operations, such as opening boils, or abscesses, or cases where no relaxation is desired. It is most encouraging to note that the advantages of cyclopropane are numerous. Of course, I was very cautious in the beginning, and may have given more gas than was needed in some cases, as all beginners do. However, thanks to Providence, I have had no casualties. I am now very enthusiastic in regard to cyclopropane and confident that it is one of the best, if not the best, anesthetic we have. Diabetes, tuberculosis, cardiac disease, nephritis, liver toxemia, or other contraindications to the use of other anesthetic agents present no barrier to the use of cyclopropane. It is ideal for the nervous patient, where an easy induction is necessary.

Cyclopropane is the ideal anesthetic for toxic patients, especially in the case of eclampsia. If patients are brought to the operating room in convulsions we always choose cyclopropane, for these patients are too toxic to be given any other anesthetic. In a very short time the convulsions cease and the patient is in condition for the surgeon to begin his work. This type of patient has too much albumin, and cyclopropane does not cause an extra load on the heart action. They are able to withstand the operation nicely without any metabolic changes.

In Caesarean section our surgeons have reported marked contractions of the uterus when cyclopropane was used. I have also noted that the baby cries more quickly, in fact, before it is handed to the nurse, and none of the babies had to be stimulated to make them breathe. There is an unusually wide margin of safety due to high oxygen content, and this is a great advantage to patients suffering from shock, anemia, starvation, or otherwise poor risks.

Cyclopropane is an ideal anesthetic for the thyrocardiac patient, and patients suffering from thyroid toxicity, coronary disease, angina pectoris, mitral stenosis, or aortic regurgitation. Nitrous oxide is dangerous because of the anoxemia that may be produced, which increases the load on the heart and decreases the supply of oxygen to the heart muscle. With cyclopropane there is complete avoidance of anoxemia, and the increased percentage of oxygen given may be of additional value.

Postoperative vomiting is lessened when cyclopropane is administered and the patients seem to have less distension and gas pains. Fluids and food can be given sooner than after ether. The percentage of pulmonary complications is lowered, according to our surgeons. Nurses caring for patients who have had cyclopropane are most enthusiastic because of the lessened postoperative complications. I have been told frequently by both the patients and nurses that if they ever have to be operated upon again, they would want to be given cyclopropane.

The first cyclopropane used in St. Francis Hospital, Peoria, Illinois, was on January 13, 1936. Since that time we have used this gas in our hospital in preference to other anesthetic agents. For seven years I was an enthusiastic user of ethylene, but I think this gas is doomed in view of the many advantages of cyclopropane. From our experience, the latter seems to be a safe, controllable, non-irritating, non-toxic anesthetic agent, permitting good oxygenation, pleasant to take, and providing satisfactory relaxation.

Our patients have ranged in age from six weeks to 82 years; strong and weak, fat and thin, good risks and very poor risks. We have found cyclopropane very satisfactory for abdominal surgery, giving relaxation in almost every case. We have had to add ether in less than ten per cent of the cases. In some cases where the patient is under light anesthesia the muscles are not completely relaxed, but breathing remains quiet, and there is no straining and pushing of the bowels, as one so often sees in other types of gas anesthesia. I think the best proof of the satisfactory nature of the anesthesia produced is that there has been no complaint from our surgeons.

We have used it in reduction of fractures. It allows easy manipulation and we have been able to secure good relaxation in even the strongest workmen without pre-operative preparation.

I have heard remarks from anesthetists that it is expensive to give cyclopropane. Let us consider, then, the cost of anesthesia for a major operation. We know that 1 cc. of cyclopropane costs $0.00075, (75/100 of a mill) therefore three liters will cost $0.22. With cyclopropane we use oxygen, helium or carbon dioxide, and soda lime, the total of which does not come to more than $0.30, consequently the total cost of anesthetic agents sufficient for administration cannot possibly be more than $0.52.

I give you this brief estimate of the cost of cyclopropane per anesthesia because one cannot figure intelligently on an hourly basis. We figure on a case lasting from fifteen minutes to one and one-half hours. Up to date we have given 2000 cyclopropane anesthesias and we have consumed 1500 gallons of cyclopropane. This averages about fifty-five minutes per case from the beginning of induction until the mask is removed from the patient's face.

In conclusion, I am happy to report that in cyclopropane we have a very valuable anesthetic. This is due largely to the work of Henderson, Lucas, Schmidt, Rovenstine and others.

At this time I want to close my discussion by reporting one of the most interesting, rare, and one of the poorest anesthetic risks of my experience. physician's report she is still gaining,

The patient, Mrs. T———, aged 40, was on May 10, 1937 admitted to the operating room in a wheel chair for a heart operation. The premedication which had been given was 1/4 grain of morphine and 1/150 grain of scopolamine. The preoperative diagnosis was pericarditis with calcified pericardium. The patient's condition was very unfavorable. Her face and hands were so cyanotic that she could easily have been mistaken for a Negro. She was coughing, her eyes were bulging, and the veins of her neck and forehead were tense and distended like cords. The pulse was weak and wavering, and impossible to count accurately. The blood pressure was 104/70.

Before operation

The patient was placed on the operating table in an upright position, and the anesthetic was started at 1:20 P.M.

Cyclopropane was chosen as the anesthetic. The patient was allowed to breathe for the first five minutes a mixture of oxygen flowing at the rate of three liters per minute and helium 1000 cc. per minute. Cyclopropane was added at the rate of 700 cc. per minute for three minutes.

It was interesting to note the remarkable change to the normal pink color of the patient's face and hands. The breathing was more normal, and the pulse became strong and a definite beat could be distinguished.

By this time the surgeon was able to start the operation without any interference from the patient. During the operation, however, a severe hemorrhage developed. It was so severe that it was necessary to use 240 sponges before it could be controlled. The blood pressure dropped from 90/60 to 40/0. No stimulants or saline infusion were given. The operation lasted for one hour and fifty-five minutes, but the anesthetic was prolonged for another five minutes. Cyclopropane was used at intervals at the rate of 700 cc. per minute for five and one-half minutes, and a continuous oxygen flow at the rate of 500 cc. with an addition of helium, 500 cc. per minute.

The patient was returned to her room at 3:45 P.M. in a satisfactory condition from a surgical standpoint. Her color remained good until about 6 P.M., when she became cyanotic and her condition seemed very poor. I was called to the room to give oxygen and helium by nasal insufflation. This was used continuously for three days, then it was discontinued altogether. From this time on the patient continued on a progressive course and was discharged from the hospital one month later. Mrs. T——— remained in bed for some time, but according to her physician's report, she is still gaining, and there has been no further cyanosis or shortness of breath.

Some of you will, no doubt, be interested to know why I gave this patient three liters of oxygen and 1000 cc. of helium for five minutes before I started the cyclopropane. We all know that it is difficult in such cases to start an anesthetic with cyclopropane or any other anesthetic agent and that there is a certain amount of shock incurred with its induction. It would be far more noticeable in this type of case than in any other type.

After operation

In hyperventilating this patient, the purpose in mind was to flood the patient's blood stream with oxygen to try to relieve the pronounced cyanosis. This is where helium played its part. Helium is much lighter than oxygen; consequently it diluted the oxygen and lessened the resistance to breathing; in other words, a heavy gas is much more difficult to breathe than a lighter gas. When the patient's color improved, I started the cyclopropane.

As a diluent, in cyclopropane anesthesia, helium has also been proposed because it is an inert gas. Unless, however, a special physiological value should be attached to helium, I would consider it an unnecessary expense for the mere function of a diluent. On the other hand, I think it well worth mentioning that we have started the use of helium instead of carbon dioxide in our anesthesia department, as well as in oxygen therapy, and the results are very promising.

ADDRESS OF CHARLES J. MARGIOTTI, ATTORNEY GENERAL OF PENNSYLVANIA

Every year in America millions of patients are taken into the operating rooms of our hospitals. In many cases the operation is a matter of life and death. Most people, while they have a natural dread of hospitals, come through their illnesses much more satisfactorily because they have confidence in their physicians and surgeons. But most of them give little or no thought to the person who administers the anesthetic which "puts them to sleep."

I have had my share of hospital treatment, and, in numerous conversations with medical men and nurses, I have come to realize the grave importance of the proper administration of anesthetics.

The field of anesthesia has been an adjunct of surgery for centuries, and since 1846 has been in complete control of medical men. About 1906 or 1907 the nurse anesthetist came into being, when certain large clinics began the practice of educating qualified registered nurses for this special work and placing them in the field of anesthesia. The nurse herself had nothing to do with it. She took up the work at the request of the medical man.

The aim of the clinics was to provide better anesthetic service to their patients by making available the full-time service of nurse anesthetists who were qualified to do this highly important work. There also was a desire on the part of the hospitals to place continuous anesthetic service at the disposal of the needy patients. Before the innovation, adequate anesthesia often was available only to the well-to-do who could employ a special medical anesthetist.

The system of the nurse anesthetist developed slowly since its inception, until in 1931 your organization was founded and now has about 1390 members.

Yet, while the nurse anesthetist daily gives excellent service in hospitals throughout the nation, she has no legal standing in herself. This is because the administration of anesthetics concerns the welfare of the patient, and thus may be done lawfully only by a licensed medical man.

It is not enough that a nurse may be entirely competent to administer an anesthetic; if her action is questioned the only thing considered is the law.

Under the situation as it exists today, the only way a nurse may be justified in giving an anesthetic is at the instigation of the qualified physician who performs the operation. The person who operates takes all responsibility for the actions of all of his assistants, including the anesthetist, even though the anesthetist may also be a licensed physician.

Thus, there is no valid reason why

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* Read at the fifth annual meeting of the National Association of Nurse Anesthetists, held in Atlantic City, N. J., September 13-17, 1937.

the anesthetist should not be a registered nurse, provided, of course, that she has the proper training and qualifications, and is entirely capable of doing the work assigned to her.

Nevertheless, objections to the nurse anesthetist come from doctors and dental anesthetists who contend that she encroaches upon the field of medicine. Personally, I think that if the nurse anesthetist is properly equipped to do her work efficiently, the doctors should be willing to accept her. If the nurse anesthetist is qualified to do this highly specialized work, she should receive remuneration commensurate with the service she performs. In plain words, she should be paid more than she gets now.

Nurse anesthetist service has a number of distinct advantages which the doctor should not overlook. The educated nurse is an intelligent observer of the mental and physical phenomena of disease. She understands the reaction of the patient to various drugs and to the treatment the doctor prescribes to relieve symptoms. She has a full knowledge of the exact and careful nursing procedures, expertly carried out, that contribute to the patient's recovery. She knows how to correlate data necessary for the physician's consideration.

Thus, a nurse's education, teaching as it does gentleness, tact and expert care in the relief of the sick, as well as affording continued critical observation of the patient, equips her with a splendid background for further postgraduate work in anesthesia.

Another thing—and this is most important—the nurse who makes anesthesia her life work insures a continuous anesthetic service in our hospitals. She also provides increasing perfection of technique with resulting comfort and safety to the patient. Such service assures skillful anesthetic care to all patients at all times. To me it seems far preferable to the practice of having anesthetics administered by interns or by special medical anesthetists who may not always be available.

Despite all of these things, the medical man remains in complete control of the situation. Unless he gives the word, the nurse anesthetist may not function.

How then does the nurse anesthetist regard the medical man? She does not question his ability or his jurisdiction. She does not contest his right to have complete control of his operation. She does not dispute his authority to name his assistants and his anesthetists. But she does say that if she is properly trained and that if she is properly qualified to administer anesthetics, there is no reason why the doctor should not accept her.

The nurse anesthetist has every desire to cooperate fully with the medical man. She prefers to be under his complete jurisdiction. She feels that she has a distinct contribution to make to the whole science of medicine, and that she is capable of doing it well. She denies that because she is not a doctor she cannot be an efficient anesthetist. She denies that she lacks intelligence to assimilate information concerning the subject, or to formulate knowledge and impart it to others. She dislikes being called a "lay person," a "nurse technician," a "helper," or to be spoken of as "serving an apprenticeship." She believes that she is worthy of her hire.

In the first place, the nurse anesthetist feels that she did not encroach upon the field of medicine, but was invited to enter it. And now that she is in it, she speaks with pride of the widespread commendation of surgeons and hospitals of her work. This, she feels, is sufficient evidence that the work she has been invited to do has been done well. She recognizes and respects the different grades of authority in the medical field, but asks only the right to carry on her particular task as a co-worker with other allied groups concerned in the problem of giving service to the sick.

The doctor should agree with the nurse's position in this matter, and he should concur in the proposition that she should be paid for the responsibility she assumes. However, he also has every right to insist that the nurse anesthetist will not offend by adopting an attitude of self-importance because she is given responsibilty. He has a right to insist that she conduct herself in a manner that will gain the confidence of the operating surgeon, and that she will not think that the doctor is arrogant just because he requires that an anesthetic be given in a certain way in a certain case. He has a right to insist that his be the last word in stating the condition of the patient to the nurse anesthetist. He has a right to assume that she will give freely and willingly of her service at all times, and that she will not intimate in any way that one surgeon is inferior to another, or that one surgeon's methods leave something to be desired. He has a right to insist that the nurse anesthetist assume as much responsibility to the patient as the doctor. He has a right to demand all of these things because after all he and he alone is responsible for the well-being of his patient.

As I see the situation, doctors and nurse anesthetists should throw aside any differences they may have and cooperate on mutual ground for the advancement of the whole field of medical science. A qualified nurse anesthetist should be permitted to do her work with the sanction and support of the doctor, and she should be paid for it.

She, in turn, should conduct herself so that the doctor will be pleased with her.

The time has come when the nurse anesthetist should be legally recognized as a highly specialized branch of the medical profession.

The work of the nurse anesthetist should be standardized. Proper courses of training should be set up for her by medical men. They should watch her progress carefully, and when they are convinced that she has attained the required efficiency to successfully hold the lives of patients in her hands, then they should accept her as a trusted helper.

Because of the great importance of the anesthetist—she has as much to do with the patient's safety as the doctor—I strongly favor legislation in the several states to give her recognition in law. Before issuing a nurse anesthetist license, the state should require her to pass a strict examination that will demonstrate without question that she is qualified. Once the nurse anesthetist is licensed, the state should maintain proper supervision over her.

In closing, I compliment your organization for the fine work it is doing, and charge you to ever carry on in your humanitarian task of alleviating human misery. I wish you well in your fight to obtain the recognition you have earned, and I have every confidence that if you continue to improve yourselves and devote your lives to the medical service, the day is not far off when you will attain your goal.

ANESTHESIA IN GYNECOLOGY

CHARLES LINTGEN, M.D.*

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In 1809 Ephraim McDowell removed an ovarian cyst from Mrs. Jane Crawford by opening her abdomen without administering any type of anesthesia. The operation was concluded in 25 minutes. This was exactly 33 years before William Morton and Crawford Long had the temerity to administer a drug, previously unknown, to a human being to produce a state of unconsciousness. The idea of anesthesia was new and the fortitude of these men was no less than that of Ephraim McDowell. All were pioneers with the courage of their convictions. McDowell's operation was the beginning of abdominal surgery, and Morton's anesthesia was destined to play a large part in its rapid advance. We can easily imagine the difficulties encountered in these early days when anesthesia meant merely the production of a state of unconsciousness by administering ether or chloroform.

Contrast that early period when only two anesthetic agents were available, without cumulative experience to be guided by, and the exact physical signs found in the different degrees of anesthesia not definitely known, with the present condition of affairs in anesthesia and surgery. Many different methods of anesthesia are now available to the gynecologist. The anesthetist of today is guided by the past experience of the pioneers in surgery and anesthesia and animal experimentation so that he knows at all times the exact condition of his patient.

The days when giving ether to a patient to the point of unconsciousness constituted the administration of an anesthetic, are gone, for which the patient and surgeon both can well be thankful. It was customary in days gone by, and not far distant, when the youngest and most inexperienced interne would be delegated to give anesthetics for any type of major operation, regardless of whether he had ever given an anesthetic or not. This condition of affairs is, of course, obsolete, and in these days of enlightened surgery, a patient can feel secure that the anesthesia will not be more formidable or dangerous than the operation itself.

In gynecology today, as in other fields of surgery, many types of anesthesia and anesthetic agents are available. A great deal depends on the proper selection of the anesthetic agent and method of induction and if the patient is not thoroughly studied prior to operation, the surgical procedure may be rendered more difficult, the hazard to the patient's life much greater, the operation itself be performed less perfectly, and there will be greater possibilities for postoperative complications. In some instances the surgeon will make a bad choice of his anesthetic, in which case the anesthetist should not be blamed, since he or she is merely administering the anesthetic which has been chosen.

SATISFACTORY ANESTHESIA

For an anesthesia to be satisfactory in gynecology, complete relaxation of the operative field is essential. This, of course, is also a requisite in other types of surgery, but I do not believe complete relaxation to be as essential as in gynecology.

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In general surgery, the parts involved can often be brought almost to the surface of the abdominal walls, especially in intestinal work, resection, appendectomy, and hernia. On the other hand, with rigid abdominal walls, it is difficult to get the required exposure necessary deep in the pelvis, rendering the operation more dangerous and difficult.

In plastic and repair work, we meet with a similar situation. If the patient is incompletely relaxed, there is bound to be a certain amount of straining, causing the bladder to be forced down anteriorly and the rectum posteriorly. To insure satisfactory plastic surgery, it is essential that the anterior and posterior vaginal walls, as well as the cervix, be absolutely motionless, enabling the surgeon to place his sutures carefully, resulting in good approximation of the mucous membranes. Marion Sims performed as many as forty operations on one patient to cure fistula, and even though the operative technique was not perfected at that time, we feel sure that if an anesthetic had been available, his success would have been materially increased.

Choice of Anesthetic:

I believe that the success of the operation often hinges on the correct choice of the anesthetic. Many times, even after a thorough study of the patient, it may be difficult to state exactly which anesthetic would be better suited to the individual. The main points to take into consideration in choosing an anesthetic are as follows:

1. General condition
2. Age
3. Height and weight
4. Condition of heart
5. Blood pressure
6. Condition of respiratory tract
   (urine
7. Laboratory studies (blood
   (special tests

1. If a patient is in the younger group, between fifteen and fifty, not overweight, with a good myocardium and other physical findings, and laboratory findings negative, she should have the most frequently used and probably the least dangerous of all anesthetics, which I believe we all agree is "ether."

Patients sixty years of age or older may be able to take nitrous oxide and ether satisfactorily, but other anesthetics should be considered, especially if a prolonged operation is contemplated. For short cases, nitrous oxide with possibly a little ether will be satisfactory. For more prolonged cases, spinal anesthesia is probably the anesthetic of choice.

The height and weight of a patient are important in so far as patients who are short and inclined to be stout are difficult to relax satisfactorily with ether. If the blood pressure is not below 100 systolic, these patients are much more satisfactory under spinal anesthesia. Small doses of avertin as a basal anesthetic will considerably reduce the amount of ether or nitrous oxide necessary and give good relaxation. Nitrous oxide, ethylene and other inhalational anesthetics are out of the question for this type of patient.

We are all aware, of course, that a heart murmur does not preclude anesthesia or operation. If the patient is in the younger age group, before myocardial changes set in, ether is well tolerated. Just how much effect general anesthesia, possibly of two hours' duration, has on such a heart is debatable. We do know that spinal anesthesia itself would have no effect on the heart after the operation is concluded, and I am inclined to suggest spinal for these healthy heart cases unless they distinctly prefer general anesthesia.

In patients who are further along in years, with myocardial changes present, we are dealing with bad surgical risks no matter what type of anesthesia is chosen. Much will depend on the type of operation. If local anesthesia is feasible, it should be utilized, since it is usually the least dangerous of all anesthetics. If it is impracticable to use local anesthesia, due to various reasons, it would probably be best to consider spinal.

Hypertension:

One of the most frequent complicating factors in gynecological patients is hypertension. Most of the patients exhibiting this condition are past fifty years of age and usually have varying degree of myocarditis or arteriosclerosis or both conditions. I believe that a large proportion of this group could tolerate nitrous oxide-oxygen or ethylene-oxygen with a small amount of ether, but the relaxation would be questionable and the deeper anesthesia in these elderly patients is not so well tolerated. Local anesthesia would, of course, be the anesthetic of choice, but due to its impracticability in a large majority of gynecological operations, it is rather infrequently used.

I feel that for this type of patient, spinal anesthesia in experienced hands is no more dangerous, all things considered, than general anesthesia. Many anesthetists do not believe spinal anesthesia should be given to a hypertensive patient. It is quite true that they have a greater fall in blood pressure but if the dosage is well chosen, and the patient watched carefully for changes in blood pressure, pulse and respiration, no untoward results will take place. If the diastolic pressure is above 100, spinal anesthesia becomes more dangerous.

Patients suffering from respiratory infections or pulmonary conditions of any type should not be given general inhalational anesthetics, nor should the diabetic patient receive a general anesthetic.

TYPES OF ANESTHESIA AVAILABLE TO GYNECOLOGISTS

1. Local
    - (a) Cocaine
    - (b) Ethyl chloride
    - (c) Nupercaine
    - (d) Novocaine
2. Inhalation
    - (a) Nitrous oxide
    - (b) Ether
    - (c) Ethylene
    - (d) Chloroform
    - (e) Cyclopropane
3. Caudal
4. Sacral
5. Spinal
6. Intravenous
    - (a) Epival
    - (b) Sodium Amytal
    - (c) Pentothal
7. Rectal
    - (a) Avertin
    - (b) Ether in oil

Local anesthesia is obtained either by: (a) direct application of the drug to the surface mucous membrane or (b) injecting a solution under the skin into the subcutaneous tissues. Another method is by freezing a small area with ethyl chloride and incising quickly.

For anesthetizing the urethra or trigone by local applications, cocaine is very useful. Nupercaine (Ciba) a new drug, is also useful for the same purpose. Ethyl chloride is often used in such conditions as Bartholin's abscess. The effects are very fleeting so that it is necessary to work quickly. For excision of the gland ethyl chloride is quite unsatisfactory. The most frequent and extensive method of producing local anesthesia is by injecting novocaine subcutaneously over the area to be operated upon. By this method, every type of gynecological operation has been successfully performed, including abdominal section.

Inhalation Anesthesia:

This is accomplished by the use of various agents, the best known being:

(a) Ether
(b) Nitrous oxide
(c) Ethylene
(d) Chloroform
(e) Cyclopropane

The relative value and safety of ether as an anesthetic are well known to all anesthetists and surgeons. If we were to classify gynecological patients according to the type of anesthesia best suited to them, the largest class would be found able to take ether.

In a general way, the following conditions should prevail in patients receiving ether anesthesia.

AGE: The patient can be up to fifty-five years of age. By this, I do not mean that a patient sixty years of age cannot take ether, because experience has taught us otherwise, but at this age, beginning myocardial and arterial changes and a certain amount of kidney and liver damage is probably present. These changes cannot always be measured in terms of physical signs or symptoms and our laboratory tests oftentimes do not disclose these early changes. For this reason, if another type of anesthesia is available, which does not affect these organs, the operative procedure will be much less formidable.

HEART AND LUNGS: A slight rise in blood pressure should not contraindicate ether, but a moderate rise usually indicates organic changes in the blood vessels, myocardia, or the kidneys, and we should try to protect these organs from further injury, if possible, by avoiding a general anesthetic.

URINE: If albumin is present in the urine in a moderate quantity, or casts regularly found, ether would be inclined to exaggerate these findings at a later postoperative date. If glycosuria is found, ether is always contraindicated.

WEIGHT: Obese patients and especially those of short stature are usually difficult to relax properly. Even though all other findings may be normal, these over-weight patients are often poor ether subjects and unless there is some other reason, ether should be avoided.

We all realize that patients should not be grouped as a class in choosing an anesthetic, but treated strictly as individuals, since we have a sufficient number of anesthetic agents to satisfy almost any situation.

Nitrous oxide and oxygen can be used for operations of short duration in which relaxation is not essential; if a certain degree of relaxation is required, ether can be supplemented through the gas machine. This, however, does not give the complete relaxation essential to examination of the pelvis preoperatively to determine the exact condition present, nor does it relax the abdomen sufficiently to do deep abdominal pelvic surgery.

Ethylene will give a greater degree of anesthesia than nitrous oxide and oxygen, but due to the many serious accidents which have occurred in the course of ethylene anesthesia, it has been abandoned in many of the hospitals. However, it is being used in many hospitals with success where the operating room has been thoroughly grounded in order to prevent static.

Chloroform is being used less and less and I do not know of a gynecological condition which would prompt me to use it. In the earlier days, when it was felt that a patient could not take ether successfully, chloroform was the only other anesthetic available.

Cyclopropane: A new hydrocarbon gas first described by the Department of Anesthesia of the University of Wisconsin in 1933. Since this time it has been used considerably in different localities and is especially useful in chest surgery. There have been a number of sudden unexplainable deaths in the course of this anesthetic, and it should be given only by one thoroughly familiar with the technique. There is no particular indication for the use of cyclopropane in pelvic surgery.

Caudal and Sacral: These methods are well adapted for certain gynecological conditions. In certain poor surgical risks, in vaginal, perineal or cervical repair work they are quite satisfactory. They are not satisfactory for lower abdominal surgery. Fifteen to thirty minutes must be allowed for caudal anesthesia to take effect. In sacral anesthesia the multiple injections in the sacral foramina involve considerable time, but the anesthesia is quite satisfactory.

Spinal anesthesia is an ideal anesthetic so far as the surgeon is concerned. The temptation for those who have used it, is to use it more frequently than is really indicated. Many different methods and techniques are in use. I believe it is well to adopt one particular agent and one technique, so that one is familiar with its peculiarities and will know better how to proceed in case of complications. In recent years much has been written on the various phases of spinal anesthesia and at the present time it is very popular. I will say only a few words regarding it.

Spinal anesthesia should not be given routinely in all gynecological operations, any more than any other type of anesthesia.

The type and the technique used should be that with which the anesthetist is most familiar and has given the greatest degree of satisfaction. Greater care and discretion must be used in cases of hypertension and where the diastolic pressure is well over 100. If a patient strongly objects to spinal, another type of anesthesia should be given if possible.

Intravenous anesthesia has been used to some extent in operations of short duration. The agent is usually one of the barbituric acid compounds, all of which act in a similar manner and usually give a short anesthesia. The general opinion seems to indicate that this method should not be used for abdominal work and that it is yet in the experimental stage.

Rectal anesthesia may be induced either with avertin or ether. Ether-oil anesthesia is seldom used in gynecology. If a patient suffering from some abdominal condition requiring surgery, and pulmonary disease is present, and if ethylene is not available, and regional or spinal not feasible, rectal oil-ether would be better than inhalation ether.

Avertin (tribromethyl alcohol) has probably more use in other types of surgery than in gynecology. In gynecology it is useful as a basal anesthetic and considerably reduces the amount of inhalation ether and the patient may be satisfactorily relaxed with supplemental nitrous oxide. It should of course never be used as a general anesthetic. I also believe it should be used cautiously even as a basal anesthetic in elderly patients.

ANESTHESIA IN A GENERAL HOSPITAL WITH SEVENTY-FIVE PER CENT NEGRO PATIENTS

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Director of Anesthesia, University of Tennessee,
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This institution is a five hundred fifty bed hospital in which an average of four hundred anesthesias are administered monthly. It is financed by the city and affiliated with the University of Tennessee.

Anesthesia in this type of hospital will always offer difficulties regardless of whether the patient is black or white, since it is impossible for one patient in a ward with thirty or forty others to feel that he is the important individual at any time, and that is the one thought you and I would have instilled into each patient to be anesthetized.

The average Negro patient in this hospital is the "true southern nigger." This Negro having always depended upon "his white folks," humbly enters the hospital, confident of being cared for; his attitude toward an operation is "if God is willing" he will recover. The Negro patient of financial means goes to a Negro hospital, pays his way, and has the doctor of his choice.

In the surgical department the carbon dioxide absorption technique is used. Ethylene-oxygen or cyclopropane-oxygen with the addition of ether vapor when necessary, is the anesthetic of choice for most procedures. Nitrous oxide-oxygen is preferred when the cautery is needed, also in the X-ray rooms and in the wards. Ether—inhalation or colonic, will always be a favorite for many surgical procedures. Spinal, evipal, and local infiltration is used when indicated.

Premedication in the surgical department varies with the changing staff, and the individual patient; however, morphine and scopolamine are the most frequently used drugs. Avertin as a basal anesthetic is often employed.

In the Maternity Hospital we have a straight flow gas machine. The patient is given nembutal at the beginning of labor, followed later by scopolamine, which is repeated as necessary. Nitrous oxide-oxygen is administered for the delivery; the addition of ether vapor is seldom necessary with the above medication. Open ether is used in this department for hypertensive patients only. Conditions in Maternity Hospital are not safe for the use of ethylene or cyclopropane.

I do not use the saturation technique in gas-oxygen anesthesia. This technique offers more danger for the Negro patient than for the white patient, as it is much more difficult to differentiate between asphyxial and anesthesia signs.

Cyanosis in the Negro is first observed by the change in color of the conjunctiva and the mucous membrane of the mouth, and the skin takes on an ashy gray color. The blood at the site of the operation may be watched; however, the anesthetist familiar with the Negro patient thinks no more of watching the blood of the Negro than that of the white patient.

Difficulties that arise with the Negro patient also appear in some white patients of the same sex, working habits of life, and physical characteristics. The Negro is strong and muscular, and the adult frequently alcoholic. Their highly emotional, religious temperament and many racial superstitions encourage an excitable induction stage, therefore psychic control is of great value to the anesthetist. The Negro, like a child who has had every step of an anesthesia explained to him by his mother, then told to go to sleep like a little man, maintains an outward composure until the face mask is placed, at which time he feels free to scream for his mother, and the Negro in like manner (child or adult) shouts. With gas-oxygen this excitement is quickly overcome; however, the induction stage is longer and requires a stronger anesthetic mixture for the Negro patient than is usually necessary for the white patient. The maintenance stage is usually uneventful and during this stage the Negro can be carried on a lighter anesthetic mixture than the average white patient.

Facial characteristics produce difficulties during anesthesia with the Negro in the following manner:

1. The broad flexible nose with a very low bridge will produce a definite obstruction to respiration when the face mask is placed unless the pressure on the face mask, to avoid leaks, is carefully watched.
2. The Negro has a large mouth with very thick lips, and when the face mask is placed care must be taken or the lips will be pushed into such a position that on each inhalation the upper lip will be drawn up over the nostril and obstruct free respiration.

A free flow of saliva is characteristic of the Negro race and this is also true of the underprivileged white people. This seems to be a nervous condition and the saliva is increased only in the induction stage of anesthesia.

Oran asepsis in this type of patient is usually poor. Vincent's and pyorrhea alveolaris with loose teeth are quite common. In all elective cases this oral condition is treated, but in the emergency case the risk of postanesthetic complications must be taken. Pulmonary complications following anesthesia are rare in both the white and the Negro patient. Each patient is hyperventilated with carbon dioxide-oxygen following anesthesia, and when indicated, three times daily for three days. This treatment is most valuable in ward cases, where it is sometimes impossible to turn patients as frequently as necessary.

In considering the advanced condition of disease in which the average Negro patient enters the hospital, my experience has been that the Negro patient takes gas-oxygen equally as well as the white patient when administered with sufficient oxygen to avoid cyanosis. The Negro seems to be able to stand trauma and prolonged anesthesia better than the white patient and recover from seemingly impossible conditions.

CORRECTIONS

The following are corrections of errors in the listing of the paid-up members published in the August, 1937, issue of the Bulletin:

Agnes Farrell, St. Luke's Hospital, Richmond, Va. (active)
Rosena J. Felgendrager, Memorial Hospital, Danville, Va. (active)
Sister M. Agatha Gerber, Sacred Heart Hospital, Tomahawk, Wis. (active)
Josephine Cook, St. John's Hospital, Jackson, Wyo. (active)

On the Board Walk

Top center—Esther Myers—leaving Honolulu for meeting; left center—Hilda Salomon, President; right center—Aimee Doerr—Oregon; lower center—Mary J. O'Brien, Mary T. Kavanagh, Anna Weick—Maryland.

ANESTHETIC MORTALITY

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Anesthetic mortality has always interested me. About two years ago I was asked to serve on a committee of the Philadelphia County Medical Society for the investigation of anesthetic deaths. This committee is made up of professional anesthetists, active surgeons, internists and specialists representing the surgical specialties. Monthly meetings are held. Most of the larger hospitals of Philadelphia are represented by the various members of this committee, and these members collect all details regarding deaths from anesthesia. All other hospitals are requested to report all anesthetic deaths to this committee of the Philadelphia County Medical Society, and blank forms are mailed to them for this purpose.

The main function of this committee so far has been to collect cases, thoroughly investigate the details of each death, record the conclusion of the committee, and file the records. The purpose is to lower the anesthetic mortality in Philadelphia, if it is possible to do so. But before any recommendations are made, we must have facts, and statistics over a period of years. There were twenty-two deaths for investigation at our last meeting.

In some cases it is most difficult to decide what constitutes an anesthetic death. Some of the cases reported as anesthetic deaths were found by the committee to be due to other causes. This is illustrated by the following case: A patient was admitted to the hospital with symptoms suggestive of placenta praevia. She was in good health and had been in the hospital for twelve hours before it was decided to do a Caesarean section. She was given a general anesthetic and vomited quantities of improperly chewed food. Shortly after the onset of vomiting, there was great respiratory difficulty, cyanosis, rapid pulse and death rapidly followed before the operation was even started. This case was reported as an anesthetic death, but an autopsy showed a piece of celery tightly lodged between the true vocal cords, making breathing impossible, and death ensued due to asphyxia. Under the proper care this patient's stomach might have been empty after twelve hours' stay in the hospital.

In some instances, the proper choice of the anesthetic agent was questioned. This may be illustrated by the following: A male aged fifty-five years, weight 215 pounds, blood pressure 190/100, temperature 103, pulse 120, suffering with a carbuncle on the back of his neck, was given nitrous oxide and oxygen anesthesia. After about six minutes of anesthesia, he became cyanotic, had great respiratory difficulty, rapid, weak pulse and died immediately. An autopsy was not obtained.

In some cases we decided that operation should not have been done at all. This is illustrated by the following record: A female, age fifty years, had had several previous admissions to the hospital, extending over a period of three years, for cardiac decompensation, hypertension and kidney disease.

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* Read at the fifth annual meeting of the National Association of Nurse Anesthetists, held in Atlantic City, N. J., September 13-17, 1937.

She also had a uterine fibroid, which had caused some vaginal bleeding at intervals. The urine examination revealed a cloud of albumen with hyaline and granular casts. The blood pressure was 190/100. There was myocarditis and mitral regurgitation. This patient was given ether anesthesia, and an abdominal hysterectomy performed. She died six hours after the anesthetic was started without ever having regained consciousness.

Due to the careful observations of a nurse anesthetist, the following fatality was prevented. After a submucous resection was done on a female patient aged 15 years, under nitrous oxide-oxygen-ether anesthesia, a pack of gauze inclosed in a rubber finger-cot was placed in each nostril. The patient was turned on her side and a tumor removed from her back. As soon as the patient was returned to her back she became blue, respirations ceased, and her pulse became very weak and was soon absent. Artificial respiration was ineffective. The ansthetist insisted that one of the nasal packs was missing, and the surgeon found it tightly lodged between the true vocal cords, making breathing impossible. It was removed, and after two or three minutes of artificial respiration and stimulation, respirations commenced and the pulse returned. She made an uneventful recovery. If this patient had died, and there had not been an autopsy, I feel sure it would have been classified as an anesthetic death.

The materials used in anesthesia are thoroughly tested for purity. The anesthetists are well trained, and are skillful in the art of administration of the anesthetic agents. Where, then, must we look for a reduction in anesthetic mortality? It must be in a more careful pre-anesthetic examination of our patient to decide whether operation is indicated, the proper type of operation for each individual patient, and the proper selection of the anesthetic agent in each individual case. Then there will be less time needed in our post-anesthetic and post-mortem examinations.

The members of your organization, with your skillful administration of anesthetic agents, have contributed greatly in the past years to the reduction in anesthetic mortality.

THE USE OF CYCLOPROPANE IN THORACIC SURGERY*

MOSES BEHREND, M.D.

From the Service of the Philadelphia General Hospital,
Unit in Thoracic Surgery

The more experienced one becomes with mechanical procedures and the use of adjuvants incident to the administration of anesthetics, the more carefully selective does one become in each individual procedure. Since it is recognized that definite organic lesions affect the same structure in different locations and that different sites in lesions require discriminating selection of the proper operation to give the best result, so likewise the same process of elimination may well be applied to the large subject of anesthesia in its relationship to the various lesions encountered for which anesthetics are used. Today this fact has become more universally recognized than ever in the application of local anesthesia, whether that be in the form of a limited area, or massive block such as can be obtained by the injection of the long nerves at their source, or by probably that greatest method of producing local anesthesia, namely, the introduction of drugs into the spinal canal.

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* Read at the annual meeting of the National Association of Nurse Anesthetists, Atlantic City, September 14, 1937.

Ether and Nitrous Oxide

Ether, the most popular anesthetic of the nineteenth century and the early years of the twentieth century, has fallen somewhat into disuse on account of its unpleasant after-effects, despite the fact that it is a good anesthetic. Yet it must by no means be relegated to the past because it still has a place in anesthesia. Especially useful on account of its low cost of administration, thereby reducing the overhead to the hospital, it is ideally suited for the anesthetization of children, as well as some selected operations on the abdomen where there is no pulmonary involvement. Of the inhalants nitrous oxide gas has gradually replaced ether to a great degree; however, the dangers of this gas must not be underrated. While I have never had a death on my service as a result of its administration, many have been reported in other clinics, death being due to asphyxia, from insufficient oxygenation.

Nitrous oxide is especially useful in operations of necessity where there is a history of an acute or chronic pulmonary infection. In many clinics, however, this gas has been almost entirely supplanted by ethylene, which has the advantage of giving greater relaxation. Danger of explosion and the many instances of this occurrence early in its use prevented the universal popularity of ethylene as compared to nitrous oxide gas. It is especially useful in all conditions and under the same circumstances in which nitrous oxide gas is employed, with the added desirable factor that a larger amount of oxygen can be used in its administration. Personally I have never employed ethylene.

Cyclopropane

Following closely in the wake of ethylene we come now to the advent of cyclopropane and its use in thoracic surgery. Cyclopropane is pleasant to take and anesthetizes quickly without a stage of excitement. While it may be indeed a dangerous anesthetic, it is a safe one in the proper hands. Cyclopropane was first used in experimentation on animals in 1928 by Lucas and Henderson. Waters, however, used it primarily on clinical cases. It is a hydrocarbon gas, a powerful anesthetic and can be given with 75 to 80 per cent of oxygen, consequently anoxemia is never present when cyclopropane is administered. In operations upon the chest, where there is always a limitation of respiration on one side and sometimes even on both sides, where, in other words, the vital capacity may be reduced very materially, and even when it reaches as low as 900 cc., cyclopropane can be used with less danger than any other anesthetic. This is due to hyperoxygenation of the blood.

Cyclopropane given by the closed method is practically safe, although the anesthetic is highly explosive when combined with oxygen. It should not be used in the presence of a cautery, or any electrically controlled spark. Smoking should be absolutely prohibited in the operating room or even in the neighborhood of the operating room.

With the addition of the carbon dioxide absorption method very little of the anesthetic is consumed, making this a most economical anesthetic because of the high oxygen content that may be used with it.

In all operations with the exception of the tuberculous, where the danger of infecting the vocal cords is imminent, an intratracheal tube should be used in the administration of cyclopropane. This method is also advantageous because when suction is required the suction tube may be placed within the intratracheal tube.

As stated before, many cases of death by asphyxia have been reported with the use of nitrous oxide gas; such an occurrence should never pertain when cyclopropane is employed, because of the large amount of oxygen (75 per cent oxygen, 25 per cent cyclopropane combination) used in the administration of cyclopropane. Never yet have I found it necessary to call the attention of the anesthetist to the fact that the blood of the patient is blue and so demanding more oxygen. How often in the administration of nitrous oxide gas must this admonition be impressed upon the anesthetist.

Cost of Anesthesia

I have alluded before to the relative cost of the various anesthetics. At first cyclopropane proved very expensive, but in recent years improved methods in its manufacture, and the great amount of oxygen used in combination, have lowered the cost of cyclopropane so that the expense per administration is probably not as great as that of nitrous oxide gas, though somewhat greater than the cost of ether, ethylene or spinal anesthesia. But when one considers the safety of the patient and the peace of mind to the surgeon when he is operating on those requiring thoracic surgery, the increased cost of this anesthetic within reasonable limits should be waived in favor of its use.

Use in the Tuberculous Patient

In operating upon patients with tuberculosis of the lungs it is necessary to place the patient upon the side at about an angle of 30 degrees. If operating on the left side the left arm should hang loosely over the left side of the table so that the distance between the vertebral border of the scapula and the vertebra is widened. The right arm should be placed in such a position as to prevent pressure on the musculospiral or radial nerve. One patient developed a mild wrist drop as a result of this pressure, but recovered the normal function in the course of a few weeks. This position causes a certain amount of obstruction to the easy inflow and outflow of air. The large amount of oxygen that one can use with cyclopropane helps to prevent the occurrence of anoxemia in the patient when placed in that position. When re-operation in several stages is required and the vital capacity of the lung is reduced as a result of a former thoracoplasty, cyclopropane demonstrates again the wide margin of safety obtainable as a result of its use.

In the Philadelphia General Hospital from August, 1934 to September, 1937, cyclopropane was administered 1410 times. Of these, 161 administrations were to patients operated upon for tuberculosis of the lungs and on whom a thoracoplasty was performed. Twenty-six rib resections, one neurectomy, and one pneumolysis were performed under cyclopropane.

Finally, we have briefly considered in this paper the relative merits of some of the various anesthetics we employ today.

1. Cyclopropane is unquestionably the best general anesthetic that

can be used in performing thoracic operations.

2. On account of the large amount of oxygen that can be used anoxemia is practically never present, even in those on whom one or two stages of thoracoplasty have been performed.
3. Cyclopropane is especially useful in the tuberculous because it eliminates bronchial irritation.
4. The statistics covering the administration of cyclopropane used in the Philadelphia General Hospital are given.

MEETING OF UNIVERSITY HOSPITALS SCHOOL OF ANESTHESIA ALUMNAE ASSOCIATION

ANN NIGHTENGALE, *President*
Lutheran Hospital, Cleveland, Ohio

The annual meeting of the Alumnae Association of the University Hospitals School of Anesthesia was held on September 15, 1937, in Atlantic City, during the annual convention of the National Association of Nurse Anesthetists. Thirty-nine members of the Alumnae Association attended the convention.

The business meeting of the Association was held at the Auditorium at 4:30 P.M. It was voted to donate fifty dollars to the Trust Fund of the National Association of Nurse Anesthetists. Incidentally this is the first contribution to that fund. Copies of the minutes of the meeting will be sent to each member of the Alumnae Associaion as soon as prepared.

It was voted unanimously to confer honorary membersihp upon Mrs. Gertrude L. Fife, former President of the Alumnae Association, and Director of the University Hospitals School of Anesthesia, and Miss Kay Sheehan, who has for several years served the Association faithfully as Secretary and Treasurer.

A luncheon in honor of Mrs. Fife was held at the Ritz-Carlton Hotel on Wednesday, at which time Mrs. Fife gave a very interesting talk in which she outlined the changes that have been made in the school and discussed plans for its future. She expressed appreciation for the contribution of fifty dollars made at last year's meeting for the purchase of books. This contribution made it possible to add eleven volumes to the school library. In addition, fourteen individual members of the alumnae donated ten books, and one book, "Pharmacology and Therapeutics," by Arthur R. Cushny, M.D., was presented by an anesthetist who is not a graduate of the school.

It was indeed gratifying to note that so many of the Alumnae members attended the annual convention of the National Association of Nurse Anesthetists, and we hope that next year the number will be increased.

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Annual Meeting, Atlantic City, N. J.

September 13-17, 1937

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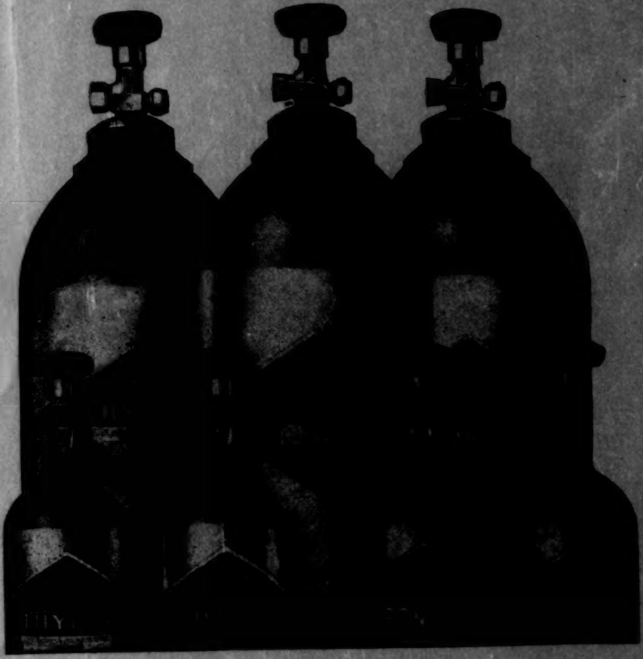

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